

ABSTRACT OF THE DISCLOSURE

A method for forming a germanium-enriched region in a heterojunction bipolar transistor and a heterojunction bipolar transistor comprising a germanium-enriched region. A base having a silicon-germanium portion is formed over a collector. Thermal oxidation of the base causes a germanium-enriched region to form on a surface of the silicon-germanium portion subjected to the thermal oxidation. An emitter is formed overlying the germanium-enriched portion region. The germanium-enriched region imparts advantageous operating properties to the heterojunction bipolar transistor, including improved high-frequency/high-speed operation.